

U.S. DEPARTMENT OF LABOR

WAGE AND LABOR STANDARDS ADMINISTRATION  
Bureau of Labor Standards

MATERIAL SAFETY DATA SHEET

APR 22 1982

Form No. LSB-005-4  
May 1969

|   |                        |   |
|---|------------------------|---|
| SECTION I   |                        | APR 30 1982   |
| MANUFACTURER'S NAME<br>Sherwin Incorporated   |                        | EMERGENCY TELEPHONE NO.<br>(213) 261-0251               |
| ADDRESS (Number, Street, City, State, and ZIP Code)<br>5007 E. Washington Blvd. Los Angeles, Calif. 90040 |                        |   |
| CHEMICAL NAME AND SYNONYMS<br>Fluorescent Penetrant   |                        | TRADE NAME AND SYNONYMS<br>Fluorescent Penetrant HM-405 |
| CHEMICAL FAMILY<br>Chemical Compound  | FORMULA<br>Proprietary |   |

| SECTION II. HAZARDOUS INGREDIENTS                     |        |             |  |   |             |
|---|--------|-------------|--|---|-------------|
| PAINTS, PRESERVATIVES, & SOLVENTS                     | %      | TLV (Units) | ALLOYS AND METALLIC COATINGS           | % | TLV (Units) |
| Nonionic Surfactant                                   | 32-38% | N/A         | BASE METAL                             |   |             |
| Plasticizer   | 10-15% | N/A         | ALLOYS                                 |   |             |
| Dyestuff  | 2-5%   | N/A         | METALLIC COATINGS                      |   |             |
| Aliphatic Solvent                                     | 45-50% | 200 ppm     | FILLER METAL PLUS COATING OR CORE FLUX |   |             |
| Ether   |        |             | OTHERS                                 |   |             |
| Ethylene Glycol, N. Butyl                             | 3-5%   | 50 ppm      |  |   |             |
| OTHERS  |        |             |  |   |             |
| HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES |        |             |  | % | TLV (Units) |
|   |        |             |  |   |             |
|   |        |             |  |   |             |
|   |        |             |  |   |             |
|   |        |             |  |   |             |

| SECTION III. PHYSICAL DATA |                                     |                                       |        |
|----------------------------|-------------------------------------|---------------------------------------|--------|
| BOILING POINT (°F.)        | 350-425 D. F.                       | SPECIFIC GRAVITY (H <sub>2</sub> O=1) | .873   |
| VAPOR PRESSURE (mm Hg.)    | 2                                   | PERCENT VOLATILE BY VOLUME (%)        | 45-50% |
| VAPOR DENSITY (AIR=1)      | 4                                   | EVAPORATION RATE (Ether=1)            | <1     |
| SOLUBILITY IN WATER        | Moderately soluble                  |                                       |        |
| APPEARANCE AND ODOR        | Yellow Green Liquid, Petroleum Odor |                                       |        |

| SECTION IV. FIRE AND EXPLOSION HAZARD DATA |                                |                  |         |
|--|--------------------------------|------------------|---------|
| FLASH POINT (Method used)                  | 150 D. F. C.O.C.               | FLAMMABLE LIMITS | LeI UeI |
|  |                                |                  | 1.0 6.0 |
| EXTINGUISHING MEDIA                        | Carbon Dioxide or Dry Chemical |                  |         |
| SPECIAL FIRE FIGHTING PROCEDURES           | None                           |                  |         |
| UNUSUAL FIRE AND EXPLOSION HAZARDS         | None                           |                  |         |

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## SECTION V. HEALTH HAZARD

THRESHOLD LIMIT VALUE 200 ppm

EFFECTS OF OVEREXPOSURE Irritation of respiratory tract

## EMERGENCY AND FIRST AID PROCEDURES

Inhalation: Remove to fresh air, maintain respiration

Eyes: Wash with plenty of water, get medical aid

Skin: Remove by wiping, wash with soap and water.

## SECTION VI. REACTIVITY

|  |                |   |                             |
|--|----------------|---|-----------------------------|
| STABILITY  | UNSTABLE       |   | CONDITIONS TO AVOID         |
|  | STABLE         | X |                             |
| INCOMPATIBILITY (Materials to avoid)<br>Materials and hazards normally incompatible with petroleum solvents. |                |   |                             |
| HAZARDOUS DECOMPOSITION PRODUCTS<br>Thermal decomposition may produce carbon monoxide and/or carbon dioxide. |                |   |                             |
| HAZARDOUS<br>POLYMERIZATION  | MAY OCCUR      |   | CONDITIONS TO AVOID<br>None |
|  | WILL NOT OCCUR | X |                             |

## SECTION VII. SPILL OR LEAK PROCEDURES

## STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove source of ignition, avoid prolonged breathing of vapors, and avoid contact with skin and eyes.

WASTE DISPOSAL METHOD Absorb with absorbant compound and dispose of in landfill or incinerate.

## SECTION VIII. SPECIAL PROTECTION INFORMATION

## RESPIRATORY PROTECTION (Specify type)

|                            |                            |   |  |
|----------------------------|----------------------------|---|--|
| VENTILATION                | LOCAL EXHAUST              | X | SPECIAL                                  |
|                            | MECHANICAL (General)       | X | OTHER                                    |
| PROTECTIVE GLOVES          | Advised                    |   | EYE PROTECTION<br>Goggles or face shield |
| OTHER PROTECTIVE EQUIPMENT | Safety shower and eye bath |   |  |

## SECTION IX. SPECIAL PRECAUTIONS

## PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Keep containers sealed and stored in an area away from fire hazard. Penetrant tanks should be covered when not in use.

## OTHER PRECAUTIONS

None

While the information and recommendations herein are intended to be accurate as of the date hereof, Sherwin Incorporated makes no warranty with respect thereto and disclaims all liability from reliance thereon.  
Amos G. Sherwin

BOE-C6-0189163